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EXAMINER	
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2621	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/814,227	TAKAHASHI, AKIHIRO	
	Examiner	Art Unit	
	JESSICA ROBERTS	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 July 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4 and 6-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4 and 6-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *07/24/2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

Claims 1-4 and 6-13 are currently pending, claim 5 has been cancelled by Applicant's amendment filed on 11/03/2008.

Continued Examination Under 37 CFR 1.114

1. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Response to Arguments

Regarding Applicants argument that Takahashi fails to disclose superimposing control information on a video signal in the manner recited in claim 1 because the endoscope information in Takahashi is not control information.

The Examiner respectfully disagrees. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In this case, the Examiner relied upon Matsura for teaching superimposing control information on a video signal. Matsura teaches wherein the digitized information outputting system outputs the control information for the processor to be superimposed on the digital video signal in response to an operation of the at least one operable member (The above mentioned releasing and freezing switching button 100 as a function switching means is provided on the upper surface of the head 92 provided on the side opposite the insertable part of the switching part 9 and is connected to the video circuit 31 through a signal line 99. The above mentioned video circuit 31 outputs a message, for example, of a "releasing mode“ or “freezing mode” as superimposed on a video signal by an on-signal from the above mention button 100, column 22 line 32-40 and fig. 28). Therefore, taking Takahashis’ teaching of A CRT controller 206 is provided to the processor to superimpose text information on the image displayed on the monitor 300, with Matsuras' teaching of the above mentioned releasing and freezing switching

button 100 as a function switching means is provided on the upper surface of the head 92 provided on the side opposite the insertable part of the switching part 9 and is connected to the video circuit 31 through a signal line 99. The above mentioned video circuit 31 outputs a message, for example, of a "releasing mode“ or “freezing mode” as superimposed on a video signal by an on-signal from the above mention button 100, has all the features of claim 1.

As to Applicants argument regarding that it is noted in Applicants' previous Response, none of Higuchi, Nakashima Wada, or Adair disclose that control information for a processor is superimposed on a digital video signal in a region included in a horizontal blanking interval. Takahashi also does not disclose such a feature.

The Examiner respectfully disagrees. It is the combination of Higuchi, Nakashima, Takahashi and Matsura as a whole that teaches the limitations as claimed. In this case, Higuchi discloses An electronic endoscope system having an electronic endoscope (**10**) and a processor (**20)** that processes an output of the electronic endoscope, the electronic endoscope including: an image capturing element (CCD, **13**) adapted to capture an image of an object to be observed; a signal processing circuit (correlated double sampling unit in conjunction with the analog digital converter and the digital video processor [0021] and **18-19**) that receives the output of the image capturing element; a digitized information outputting system (**10**) that outputs digitized information representing at least information intrinsic to the electronic endoscope and control information for the processor (information is communicated between the microcomputer **21** at the side of the endoscope and the microcomputer **35** for the processor [0025] and

21, 35). Higuchi is silent in regards to a generates a digital video signal including a region included in a horizontal blanking interval; and a digitized information superimposing system that superimposes the digitized information output by the digitized information outputting system, including the information intrinsic to the electronic endoscope and the control information for the processor on the digital video signal output by the signal processing circuit in the region included in the horizontal blanking interval, wherein the electronic endoscope is provided with at least one operable member which can be operated by a user, and wherein the digitized information outputting system outputs the control information for the processor to be superimposed on the digital video signal in response to an operation of the at least operable member.

However, Nakashima discloses to generate a digital video signal including a region included in a horizontal blanking interval (Nakashima discloses the video signal is a TV signal, and the signal adder adds the control signal to a blanking interval of said TV signal so that said blanking interval includes the control signal, [0010]. Further disclosed in fig. 3, the character pattern is generated for each horizontal scanning line, so that a line of figures/letters is formed by 7 horizontal scanning lines. The image masking signal and the information signal, generated by the character generator 64 are output in accordance with the synchronization signal from the timing generator 41 and are added to the video signal by the adder 61 and supplied to the modulator/transmitter 50 [0057]. Since a horizontal blanking interval is the time which during which the electron beam is turned almost off (as if to draw black) and moved from right to left to

get ready to draw the next scan line on the picture tube, and Nakashima discloses that a line of figures/letters is formed by horizontal scanning lines, it is obvious that Nakashima also includes the horizontal blanking intervals as well); and a digitized information superimposing system that superimposes the digitized information output by the digitized information outputting system on the digital video signal output by the signal processing circuit in the region included in the horizontal blanking interval, the processor operating in accordance with the control information [0010], [0022]. Since a horizontal blanking interval is the time which during which the electron beam is turned almost off (as if to draw black) and moved from right to left to get ready to draw the next scan line on the picture tube, and Nakashima discloses that a line of figures/letters is formed by horizontal scanning lines, it is obvious that Nakashima also includes the horizontal blanking intervals as well), wherein the electronic endoscope is provided with at least one operable member which can be operated by a user (It is possible to connect the video camera 30 to the eyepiece portion 21 of the endoscope 20. The video camera 30 is provided with a battery 33 incorporated therein, so that video camera 30 can be used without needed a connection cord. The video camera 30 is provided on its outer housing with a switch group 31 having a plurality of switches, [0047] and fig. 1 element 31).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Higuchi and Nakashima in order to provide a small and light endoscope apparatus in which information (video settings) of

an image pickup device of the endoscope is indicated and confirmed in a TV monitor [0006].

Higuchi (modified by Nakashima) is silent in regards to including the information intrinsic to the electronic endoscope and the control information for the processor, and wherein the digitized information outputting system outputs the control information for the processor to be superimposed on the digital video signal in response to an operation of the at least one operable member.

However, Takahashi teaches including information intrinsic to the electronic endoscope (The endoscope information may be superimposed on the image captured by the imaging device, [0025]. Further, disclosed is the processor 200 superimposes arbitrary text information obtained from the CPU 201 on the image captured by the CCD 104. The text information may include information obtained from the EEPROM 102, [0058]-[0060] and fig. 2) and the control information for the processor (A CRT controller 206 is provided to the processor to superimpose text information on the image displayed on the monitor 300, [0058]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Takahashi with Higuchi (modified by Higuchi and Nakashima) for providing an endoscope system, new endoscope data is automatically registered in a database of endoscopes' data without requiring cumbersome manual operation [0011].

Higuchi (modified by Nakashima and Takahashi) is silent in regards to wherein the digitized information outputting system outputs the control information for the

processor to be superimposed on the digital video signal in response to an operation of the at least one operable member.

However, Matsura teaches wherein the digitized information outputting system outputs the control information for the processor to be superimposed on the digital video signal in response to an operation of the at least one operable member (The above mentioned releasing and freezing switching button 100 as a function switching means is provided on the upper surface of the head 92 provided on the side opposite the insertable part of the switching part 9 and is connected to the video circuit 31 through a signal line 99. The above mentioned video circuit 31 outputs a message, for example, of a "releasing mode“ or “freezing mode” as superimposed on a video signal by an on-signal from the above mention button 100, column 22 line 32-40 and fig. 28). Therefore, taking Takahashis' teaching of A CRT controller 206 is provided to the processor to superimpose text information on the image displayed on the monitor 300, with Matsuras' teaching of the above mentioned releasing and freezing switching button 100 as a function switching means is provided on the upper surface of the head 92 provided on the side opposite the insertable part of the switching part 9 and is connected to the video circuit 31 through a signal line 99. The above mentioned video circuit 31 outputs a message, for example, of a "releasing mode“ or “freezing mode” as superimposed on a video signal by an on-signal from the above mention button 100, has all the features of claim 1.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Matsura with Higuchi (modified by

Nakashima and Takahashi) for providing an endoscope high in the operatability of a plurality of switches without making the operating part large, (Matsura, column 2 line 46-48).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1- 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higuchi et al., US 2001/0022612 in view of Nakashima et al., US-2001/0015754 and further in view of Takahashi et al., US-2003/0004398 in view of Matsura et al., US-4,979,497.

Regarding claim 1, Higuchi discloses An electronic endoscope system having an electronic endoscope (**10**) and a processor (**20)** that processes an output of the electronic endoscope, the electronic endoscope including: an image capturing element (CCD, **13**) adapted to capture an image of an object to be observed; a signal processing

circuit (correlated double sampling unit in conjunction with the analog digital converter and the digital video processor [0021] and **18-19**) that receives the output of the image capturing element; a digitized information outputting system (**10**) that outputs digitized information representing at least information intrinsic to the electronic endoscope and control information for the processor (information is communicated between the microcomputer **21** at the side of the endoscope and the microcomputer **35** for the processor [0025] and **21, 35**). Higuchi is silent in regards to a generates a digital video signal including a region included in a horizontal blanking interval; and a digitized information superimposing system that superimposes the digitized information output by the digitized information outputting system, including the information intrinsic to the electronic endoscope and the control information for the processor on the digital video signal output by the signal processing circuit in the region included in the horizontal blanking interval, the processor operating in accordance with the control information, wherein the electronic endoscope is provided with at least one operable member which can be operated by a user, and wherein the digitized information outputting system outputs the control information for the processor to be superimposed on the digital video signal in response to an operation of the at least operable member.

However, Nakashima discloses to generate a digital video signal including a region included in a horizontal blanking interval (Nakashima discloses the video signal is a TV signal, and the signal adder adds the control signal to a blanking interval of said TV signal so that said blanking interval includes the control signal, [0010]. Further disclosed in fig. 3, the character pattern is generated for each horizontal scanning line,

so that a line of figures/letters is formed by 7 horizontal scanning lines. The image masking signal and the information signal, generated by the character generator 64 are output in accordance with the synchronization signal from the timing generator 41 and are added to the video signal by the adder 61 and supplied to the modulator/transmitter 50 [0057]. Since a horizontal blanking interval is the time which during which the electron beam is turned almost off (as if to draw black) and moved from right to left to get ready to draw the next scan line on the picture tube, and Nakashima discloses that a line of figures/letters is formed by horizontal scanning lines, it is obvious that Nakashima also includes the horizontal blanking intervals as well); and a digitized information superimposing system that superimposes the digitized information output by the digitized information outputting system on the digital video signal output by the signal processing circuit in the region included in the horizontal blanking interval [0010], [0022]. Since a horizontal blanking interval is the time which during which the electron beam is turned almost off (as if to draw black) and moved from right to left to get ready to draw the next scan line on the picture tube, and Nakashima discloses that a line of figures/letters is formed by horizontal scanning lines, it is obvious that Nakashima also includes the horizontal blanking intervals as well), wherein the electronic endoscope is provided with at least one operable member which can be operated by a user (It is possible to connect the video camera 30 to the eyepiece portion 21 of the endoscope 20. The video camera 30 is provided with a battery 33 incorporated therein, so that video camera 30 can be used without needed a connection cord. The video camera 30

is provided on its outer housing with a switch group 31 having a plurality of switches, [0047] and fig. 1 element 31).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Higuchi and Nakashima in order to provide a small and light endoscope apparatus in which information (video settings) of an image pickup device of the endoscope is indicated and confirmed in a TV monitor [0006].

4. Higuchi (modified by Nakashima) is silent in regards to including the information intrinsic to the electronic endoscope and the control information for the processor, the processor operating in accordance with the control information, and wherein the digitized information outputting system outputs the control information for the processor to be superimposed on the digital video signal in response to an operation of the at least one operable member.

5. However, Takahashi teaches including information intrinsic to the electronic endoscope (The endoscope information may be superimposed on the image captured by the imaging device, [0025]. Further, disclosed is the processor 200 superimposes arbitrary text information obtained from the CPU 201 on the image captured by the CCD 104. The text information may include information obtained from the EEPROM 102, [0058]-[0060] and fig. 2) and the control information for the processor (A CRT controller 206 is provided to the processor to superimpose text information on the image displayed on the monitor 300, [0058]), the processor operating in accordance with control information (An operation panel 207 is provided to the processor 200. A plurality

of operation buttons (not shown) are arranged on the operation panel 207 at the portion exposed to outside of the case of the processor 200 such that an operator of the endoscope system 1 can press each button. Each button outputs a signal to the CPU 201, as being pressed to control the operation of the processor 200, [0053]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Takahashi with Higuchi (modified by Higuchi and Nakashima) for providing an endoscope system, new endoscope data is automatically registered in a database of endoscopes' data without requiring cumbersome manual operation [0011].

Higuchi (modified by Nakashima and Takahashi) is silent in regards to wherein the digitized information outputting system outputs the control information for the processor to be superimposed on the digital video signal in response to an operation of the at least one operable member.

6. However, Matsura teaches wherein the digitized information outputting system outputs the control information for the processor to be superimposed on the digital video signal in response to an operation of the at least one operable member (The above mentioned releasing and freezing switching button 100 as a function switching means is provided on the upper surface of the head 92 provided on the side opposite the insertable part of the switching part 9 and is connected to the video circuit 31 through a signal line 99. The above mentioned video circuit 31 outputs a message, for example, of a "releasing mode" or "freezing mode" as superimposed on a video signal by an on-signal from the above mention button 100, column 22 line 32-40 and fig. 28). Therefore,

taking Takahashis' teaching of A CRT controller 206 is provided to the processor to superimpose text information on the image displayed on the monitor 300, with Matsuras' teaching of the above mentioned releasing and freezing switching button 100 as a function switching means is provided on the upper surface of the head 92 provided on the side opposite the insertable part of the switching part 9 and is connected to the video circuit 31 through a signal line 99. The above mentioned video circuit 31 outputs a message, for example, of a "releasing mode“ or “freezing mode” as superimposed on a video signal by an on-signal from the above mention button 100, has all the features of claim 1.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Matsura with Higuchi (modified by Nakashima and Takahashi) for providing an endoscope high in the operatability of a plurality of switches without making the operating part large, (Matsura, column 2 line 46-48).

Regarding **claim 2**, Higuchi (modified by Nakashima, Takahashi, and Matsura) as a whole teaches everything as claimed above, see claim 1. In addition, Higuchi discloses The electronic endoscope system according to claim 1, wherein the electronic endoscope is provided with a storage, which stores the information intrinsic to the electronic endoscope, the digitized information outputting system retrieving the information intrinsic to the electronic endoscope from the storage (microcomputer for performing an integral control on each circuit , [0022] and **21**.

Regarding **claim 3,** Higuchi (modified by Nakashima, Takahashi, and Matsura) as a whole teaches everything as claimed above, see claim 1. In addition, Higuchi discloses the electronic endoscope system according to claim 1, wherein the information intrinsic to the electronic endoscope includes a type of the electronic endoscope (EEPROM, [0022] and **22**).

Regarding **claim 4,** Higuchi (modified by Nakashima, Takahashi, and Matsura) as a whole teaches everything as claimed above, see claim 3. In addition, Higuchi discloses the electronic endoscope system according to claim 3, and wherein the processor processes the digital video signal extracted from the output of the electronic endoscope in accordance with the information intrinsic to the electronic endoscope ([0030]). Higuchi is silent in regards to wherein the electronic endoscope outputs the digital video signal including the superimposed digitized information in the region included in the horizontal blanking interval to the processor.

However, Nakashima discloses wherein the electronic endoscope outputs the digital video signal including the superimposed digitized information in the region included in the blanking interval to the processor ([0010] and [0022]. Further disclosed in fig. 3, the character pattern is generated for each horizontal scanning line, so that a line of figures/letters is formed by 7 horizontal scanning lines. The image masking signal and the information signal, generated by the character generator 64 are output in accordance with the synchronization signal from the timing generator 41 and are added to the video signal by the adder 61 and supplied to the modulator/transmitter 50 [0057]. Since a horizontal blanking interval is the time which during which the electron beam is

turned almost off (as if to draw black) and moved from right to left to get ready to draw the next scan line on the picture tube, and Nakashima discloses that a line of figures/letters is formed by horizontal scanning lines, it is obvious that Nakashima also includes the horizontal blanking intervals as well.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Higuchi (modified by Takahashi and Matsura) and Nakashima in order to provide a small and light endoscope apparatus in which information (video settings) of an image pickup device of the endoscope is indicated and confirmed in a TV monitor [0006].

Regarding **claim 6,** Higuchi (modified by Nakashima, Takahashi, and Matsura) as a whole teaches everything as claimed above, see claim 1. In addition, The electronic endoscope system according to claim 5, wherein the processor includes an extracting system that extracts the digitized information from the digital video signal (Higuchi, mirror circuit in conjunction with the contour enhancing circuit and color conversion circuit, **26-28** [0030]). Higuchi silent in regards to including the superimposed digitized information in the region included in the blanking interval.

However, Nakashima teaches including the superimposed digitized information in the region included in the horizontal blanking interval ([0010]. Since a horizontal blanking interval is the time which during which the electron beam is turned almost off (as if to draw black) and moved from right to left to get ready to draw the next scan line on the picture tube, and Nakashima discloses that a line of figures/letters is formed by

horizontal scanning lines, it is obvious that Nakashima also includes the horizontal blanking intervals as well).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Higuchi (modified by Takahashi and Matsura) and Nakashima in order to provide a small and light endoscope apparatus in which information (video settings) of an image pickup device of the endoscope is indicated and confirmed in a TV monitor [0006].

Regarding **claim 7,** Higuchi (modified by Nakashima, Takahashi, and Matsura) as a whole teaches everything as claimed above, see claim 1. The electronic endoscope system according to claim 6, wherein the processor includes a controller that controls a device to which the digitized information as extracted is directed (Higuchi and Wada both disclose a processor in which they both contain a microprocessor for controlling the processor. Furthermore, it's notoriously known that a processor would include a controller).

7. Claims 8-9 rejected under 35 U.S.C. 103(a) as being unpatentable over Higuchi et al., US-2001/0022612 in view of Nakashima et al,. US2001/0015754 and in view of Takahashi et al., US-2003/0004398 A1 in view of Matsura et al., US4,974,497 and further in view of Wada et al., US-7,053,926.

Regarding **claim 8,** Higuchi (modified by Nakashima, Takahashi, and Matsura) as a whole teaches everything as claimed above, see claim 7. Higuchi (modified by Nakashima, Takahashi, and Matsura) are silent in regards to the electronic endoscope system according to claim 7, wherein the processor is connected with a displaying

device the controller controlling the displaying device in accordance with the control information represented by the digitized information.

However, Wada teaches the electronic endoscope system according to claim 7, wherein the processor is connected with a displaying device (Wada; monitor column 4 line 38 and **38**), the controller controlling the displaying device in accordance with the control information represented by the digitized information (Wada, microcontroller performs various kinds of control, column 4 line 59-61 and **30**).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Higuchi (modified by Nakashima, Takahashi, and Matsura) and Wada in order to provide an electronic endoscope apparatus that can easily form an image at a desired magnification, can obtain a still image itself, positioned in optimum conditions, in a state where the still image is arbitrarily enlarged, and moreover, can record the still image, which is enlarged, in a recording device through easy operation (column 2 line 19-26).

Regarding **claim 9**, Higuchi (modified by Nakashima, Takahashi, and Matsura) as a whole teaches everything as claimed above, see claim 7. In addition, Higuchi (modified by Nakashima, Takahashi, and Matsura) silent in regards to the electronic endoscope system according to claim 7, wherein the processor is connected with a printing device the controller controlling the printing device in accordance with the control information represented by the digitized information.

However, The electronic endoscope system according to claim 7, wherein the processor is connected with a printing device (Wada; recording device, column 4 line

36-39 and **17**), the controller controlling the printing device in accordance with the control information represented by the digitized information (Wada, microcontroller performs the transmission of the record trigger signal to recording device, column 5 line 25-29 and **36**).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Higuchi (modified by Nakashima, Takahashi, and Matsura) and Wada in order to provide an electronic endoscope apparatus that can easily form an image at a desired magnification, can obtain a still image itself, positioned in optimum conditions, in a state where the still image is arbitrarily enlarged, and moreover, can record the still image, which is enlarged, in a recording device through easy operation (column 2 line 19-26).

8. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higuchi et al., US-2001/0022612 A1 in view of Nakashima et al., US-2001/001575754 A1 in view of Takahashi et al., US-2003/0004398 A1 and in view of Matsura et al, US-4,979,497 and further in view of Adair et al., US-2006/0022234 A1.

Regarding **claim 10,** Higuchi (modified by Nakashima, Takahashi, and Matsura) as a whole teaches everything as claimed above, see claim 1. In addition, Higuchi discloses The electronic endoscope system according to claim 1, wherein the digital video signal output by the signal processing system includes luminance signal and color difference signals ([0021]. Higuchi is silent in regards to multiplexing the signals in accordance with a time-division multiplexing method.

However, Adair teaches a time division multiplexing scheme ([0018]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Higuchi (modified by Nakashima, Takahashi, and Matsura) with the teachings of Adair to provide a surgical device with imaging capability which may be battery powered and may wirelessly communicate for viewing video images ([0012]).

Regarding **claim 11,** Higuchi (modified by Nakashima, Takahashi, Matsura, and Adair) as a whole teaches everything as claimed above, see claim 10. In addition, Higuchi teaches the DVP 20 generates a luminance signal (Y) and a color difference signal (C) in a digital process performed on an image signal (video signal) output from the CCD 13, and performs an image process such as amplification, white balance, gamma amendment, etc. ([0021]). However, Higuchi is silent in regards to the digitized information superimposing system superimposes the digitized information in the region included in the blanking interval.

However, Nakashima discloses the video signal is a TV signal, and the signal adder adds the control signal to a horizontal blanking interval of said TV signal so that said blanking interval includes the control signal ([0010] and [0025]). Nakashima discloses to Further Nakashima discloses a signal adder for adding the information signal to the video signal to output the video signal added with the information signal to the transmitter ([0032] and fig. 2. In fig. 3, the character pattern is generated for each horizontal scanning line, so that a line of figures/letters is formed by 7 horizontal scanning lines. The image masking signal and the information signal, generated by the character generator 64 are output in accordance with the synchronization signal from

the timing generator 41 and are added to the video signal by the adder 61 and supplied to the modulator/transmitter 50 [0057]. Since a horizontal blanking interval is the time which during which the electron beam is turned almost off (as if to draw black) and moved from right to left to get ready to draw the next scan line on the picture tube, and Nakashima discloses that a line of figures/letters is formed by horizontal scanning lines, it is obvious that Nakashima also includes the horizontal blanking intervals as well).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Higuchi (modified by Takahashi, Matsura, and Adair) and Nakashima in order to provide a small and light endoscope apparatus in which information (video settings) of an image pickup device of the endoscope is indicated and confirmed in a TV monitor [0006].

Higuchi (modified by Nakashima, Takahashi, Matsura and Adair) as a whole are silent in regards to the digitized information are multiplexed in accordance with a time-division multiplexing method.

However, Adair teaches a time division multiplexing scheme ([0018]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Higuchi (modified by Nakashima, Takahashi, and Matsura,) with the teachings of Adair to provide a surgical device with imaging capability which may be battery powered and may wirelessly communicate for viewing video images ([0012]).

Regarding **claim 12,** Higuchi (modified by Nakashima, Takahashi, Matsura, and Adair) is silent in regards to teach wherein the multiplexed luminance signal, color

difference signals and the digitized information is a parallel digital video signal, and wherein the electronic endoscope further includes a converting system that converts the parallel digital video signal into a serial digital video signal. However, Official notice is taken that both the concept and the advantage of providing the limitations as claimed are notoriously well known and expected in the art, and therefore would have been obvious to incorporate in Higuchi (modified by Nakashima, Takahashi, Matsura, and Adair) for the benefit of outputting the digital video signal to various peripheral devices for displaying, printing, or controlling purposes.

9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakashima et al., US-2001/0015754 in view of Higuchi et al., US 2001/0022612 and further in view of Matsura et al., US-4,979,497.

Regarding **claim 13,** Nakashima teaches A method of controlling a processor of an electronic endoscope system that includes an electronic endoscope and the processor, comprising: the electronic endoscope configured to capture an image of an object to be observed ([0014]), and to generate a digital video signal including a region included in a horizontal blanking interval (Nakashima discloses the video signal is a TV signal, and the signal adder adds the control signal to a blanking interval of said TV signal so that said blanking interval includes the control signal, [0010]. Further disclosed in fig. 3, the character pattern is generated for each horizontal scanning line, so that a line of figures/letters is formed by 7 horizontal scanning lines. The image masking signal and the information signal, generated by the character generator 64 are output in accordance with the synchronization signal from the timing generator 41 and are added

to the video signal by the adder 61 and supplied to the modulator/transmitter 50 [0057]. Since a horizontal blanking interval is the time which during which the electron beam is turned almost off (as if to draw black) and moved from right to left to get ready to draw the next scan line on the picture tube, and Nakashima discloses that a line of figures/letters is formed by horizontal scanning lines, it is obvious that Nakashima also includes the horizontal blanking intervals as well); the electronic endoscope superimposing control information on the digital video signal in the region included in the horizontal blanking interval to control the processor ([0025]); the electronic endoscope transmitting the superimposed digital video signal including the control information superimposed in the region included in the horizontal blanking interval ([0023], [0025] Nakashima discloses the video signal is a TV signal, and the signal adder adds the control signal to a blanking interval of said TV signal so that said blanking interval includes the control signal, [0010]. Further disclosed in fig. 3, the character pattern is generated for each horizontal scanning line, so that a line of figures/letters is formed by 7 horizontal scanning lines. The image masking signal and the information signal, generated by the character generator 64 are output in accordance with the synchronization signal from the timing generator 41 and are added to the video signal by the adder 61 and supplied to the modulator/transmitter 50 [0057]. Since a horizontal blanking interval is the time which during which the electron beam is turned almost off (as if to draw black) and moved from right to left to get ready to draw the next scan line on the picture tube, and Nakashima discloses that a line of figures/letters is formed by horizontal scanning lines, it is obvious that Nakashima also

includes the horizontal blanking intervals as well), wherein the digitized electronic endoscope is provided with at least one operable member which can be operated by a user. Nakashima is silent in regards to the processor receiving the superimposed digital video signal and extracting the control information; and the processor operating in accordance with the control information, and wherein the electronic endoscope outputs the control information for the processor to be superimposed on the digital video signal in response to an operation of the at least one operable member.

However, Higuchi teaches extracting the control information ([0030]) and the processor operating in accordance with the control information (the microcomputer in conjunction with ROM, the microcomputer integrally controlling each circuit in the processor and the ROM stores the process information obtained by the processor device(0025] and **35, 26**).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Nakashima and Higuchi for providing an electronic endoscope apparatus capable of reducing flicker on the screen when an image obtained by an endoscope is displayed on a display unit, etc. other than a TV monitor, thereby improving the quality of the image by providing a greater resolution ([0009]).

Nakashima (modified by Higuchi) is silent in regards to wherein the digitized information outputting system outputs the control information for the processor to be superimposed on the digital video signal in response to an operation of the at least one operable member.

However, Matsura teaches wherein the endoscope (fig. 28) outputs the control information for the processor to be superimposed on the digital video signal in response to an operation of the at least one operable member (The above mentioned releasing and freezing switching button 100 as a function switching means is provided on the upper surface of the head 92 provided on the side opposite the insertable part of the switching part 9 and is connected to the video circuit 31 through a signal line 99. The above mentioned video circuit 31 outputs a message, for example, of a "releasing mode“ or “freezing mode” as superimposed on a video signal by an on-signal from the above mention button 100, column 22 line 32-40 and fig. 28).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Matsura with Nakashima (modified by Higuchi) for providing to provide an endoscope high in the operatability of a plurality of switches without making the operating part large, (Matsura, column 2 line 46-48).

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JESSICA ROBERTS whose telephone number is (571)270-1821. The examiner can normally be reached on 7:30-5:00 EST Monday-Friday, Alt Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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